

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 7

Complete if Known

Application Number	
Filing Date	On Even Date Herewith
First Named Inventor	Paz EINAT
Group Art Unit	1635
Examiner Name	
Attorney Docket Number	EINAT=1.1D

JC986 U.S. PTO
10/09/1333
03/06/02

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
1802	AA	3,791,993		Schuurs et al	02-12-1974	
	AB	3,838,153		Schuurs et al	10-01-1974	
	AC	3,850,578		McConnell	11-26-1974	
	AD	3,850,572		Schuurs et al	11-26-1974	
	AE	3,853,987		Dreyer	12-10-1974	
	AF	3,867,517		Ling	02-17-1975	
	AG	3,879,262		Schuurs et al	04-22-1975	
	AH	3,901,654		Gross	08-26-1975	
	AI	3,935,074		Rubenstein et al	01-27-1976	
	AJ	3,984,533		Uzgiris	10-05-1976	
	AK	3,996,345		Ullman et al	12-07-1976	
	AL	4,034,074		Miles	07-04-1977	
	AM	4,098,876		Piasio et al	07-04-1978	
	AN	4,666,828		Gusella	05-19-1987	
	AO	4,683,202		Mullis	07-28-1987	
	AP	4,736,866		Leder et al	04-12-1988	
	AQ	4,801,531		Frossard	01-31-1989	
	AR	4,866,042		Neuwelt	09-12-1989	
	AS	4,873,191		Wagner et al	10-10-1989	
	AT	4,879,219		Wands et al	11-07-1989	
	AU	5,011,771		Bellet et al	04-30-1991	
	AV	5,175,383		Leder et al	12-29-1992	
	AW	5,175,384		Krimpenfort et al	12-29-1992	
24	AX	5,175,385		Wagner et al	12-29-1992	
	AY	5,192,659		Simons	03-09-1993	
	AZ	5,221,778		Byrne et al	06-22-1993	
	BA	5,225,347		Goldberg et al	07-06-1993	
	BB	5,272,057		Smulson	12-21-1993	
	BC	5,281,521		Trojanowski et al	01-25-1994	
	BD	5,288,846		Quertermous et al	02-22-1994	
	BE	5,298,422		Schwartz et al	03-29-1994	
24	BF	5,347,075		Sorge	09-13-1994	
	BG	5,360,735		Weinshank et al	11-01-1994	
	BH	5,387,742		Cordell	02-07-1995	
	BI	5,464,764		Capecchi et al	11-07-1995	
	BJ	5,487,992		Capecchi et al	01-30-1996	
24	BK	5,614,396		Bradley et al	03-25-1997	

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2 of 7

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		Office ³	Number					
	BL	WO	93/1420			07-22-1993		
	BM	WO	94/06908			03-31-1994		
	BN	WO	94/23649			10-13-1994		
	BO	WO	94/28123			12-08-1994		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	BP	Agrawal S, "Antisense oligonucleotides: towards clinical trials", <u>Trends Biotechnol.</u> 14(10):376-387 (1996)	
	BQ	Akhter et al, "Interactions of antisense DNA oligonucleotide analogs with phospholipid membranes (liposomes)", <u>Nuc. Res.</u> 19:5551-5559 (1991)	
	BR	Alon et al, "Vascular endothelial growth factor acts as a survival factor for newly formed retinal vessels and has implications for retinopathy of prematurity", <u>Nat. Med.</u> 1(10):1024-1028 (1995)	
	BS	ATTWOOD, T, "The Bable of Bioinformatics", <u>Science</u> 290:471-473 (2000)	
	BT	Benjamin et al, "Conditional switching of vascular endothelial growth factor (VEGF) expression in tumors: induction of endothelial cell shedding and regression of hemangioblastoma-like vessels by VEGF withdrawal", <u>Proc. Natl. Acad. Sci. USA</u> 94(16):8761-8766 (1997).	
	BU	BERENDSEN, H, "A Glimpse of the Holy Grail?", <u>Science</u> 282:642-643 (1998)	
	BV	Blaesse, "Gene Therapy for Cancer", <u>Sci. Am.</u> 276(6):111-115 (1997)	
	BW	Bouck et al, "How tumors become angiogenic" <u>Adv. Cancer Res.</u> 69:135-174 (1996)	
	BX	Bunn et al, "Oxygen sensing and molecular adaptation in hypoxia", <u>Physiol. Rev.</u> 76:839-885 (1996)	

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Sheet 3

of 7

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BY	Burke et al, "Preparation of Clone Libraries in Yeast Artificial-Chromosome Vectors", in <u>Methods in Enzymology</u> , Vol 194, "Guide to Yeast Genetics and Molecular Biology", eds. Guthrie et al, Academic Press, Inc. Chap. 17, pp. 251-270 (1991)
BZ	Calabretta et al, "Antisense strategies in the treatment of leukemias", <u>Semin. Oncol.</u> 23:78 (1996)
CA	Capecchi, "Altering the genome by homologous recombination", <u>Science</u> 244:1288-1292 (1989)
CB	Carmeliet et al, "Role of HIF-1alpha in hypoxia-mediated apoptosis, cell proliferation and tumour angiogenesis", <u>Nature</u> 394(66923): 485-490 (1998)
CC	Crooke, "Progress in antisense therapeutics", <u>Hematol. Pathol.</u> 2:59 (1995)
CD	Davies et al, "Targeted alterations in yeast artificial chromosomes for inter-species gene transfer", <u>Nucleic Acids Research</u> 20(11):2693-2698 (1992)
CE	de Gruyter, <u>Concise Encyclopedia Biology</u> , p. 32
CF	Dickinson et al, "High frequency gene targeting using insertional vectors", <u>Human Molecular Genetics</u> 2(8):1299-1302 (1993)
CG	Duff et al, "Insertion of a pathogenic mutation into a yeast artificial chromosome containing the human APP gene and expression in ES cells", <u>Research Advances in Alzheimer's Disease and Related Disorders</u> (1995)
CH	Duke et al, "Cell Suicide in Health and Disease", <u>Sci. Am.</u> , pp. 80-87 (1996)
CI	Eckstein, "Nucleotide Phosphorothioates", <u>Ann. Rev. Biochem.</u> 54:367-402 (1985)
CJ	Felgner, "Nonviral Strategies for Gene Therapy", <u>Sci. Am.</u> , pp. 102-106 (1997)
CK	Fyodorov et al, et-1, a novel ETS domain factor that can activate neuronal nAChR gene transcription", <u>J. Neurobiol.</u> 34(2):151-163 (1998)
CL	Gallagher et al, "Identification of p53 Genetic Suppressor Elements which Confer Resistance to Cisplatin", <u>Oncogene</u> 14:185-193 (1997)

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**INFORMATION DISCLOSURE
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Sheet

4

of

7

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Attorney Docket Number

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	CM	GALPERIN et al, "Who's your neighbor? New computational approaches for functional genomics", <u>Nature Biotechnol</u> 18:609-613 (2000)	
	CN	Gewritz, "Oligodeoxynucleotide-based therapeutics for human leukemias", <u>Stem Cells Dayt.</u> 11:96 (1993)	
	CO	Gordon, Transgenic Animals", <u>Intl. Rev. Cytol.</u> 115:171-229 (1989)	
	CP	Hanahan et al, "Patterns and Emerging Mechanisms of Angiogenic Switch During Tumorigenesis" <u>Cell</u> 86:353-364 (1996)	
	CQ	Hanania et al, "Recent advances in the application of gene therapy to human disease", <u>Am. J. Med.</u> 99:537 (1995)	
	CR	Herskowitz, "Functional Inactivation of Genes by Dominant Negative Mutations", <u>Nature</u> 329(6136):219-222 (1987)	
	CS	Holzmayr et al, "Isolation of Dominant Negative Mutants and Inhibitory Antisense RNA Sequences by Expression Selection of Random DNA Fragments", <u>Nucleic Acids Res.</u> 20(4):744-747 (1992)	
	CT	Huxley et al, "The human HPRT gene on a yeast artificial chromosome is functional when transferred to mouse cells by cell fusion". <u>Genomics</u> 9:742-750 (1991)	
	CU	Iyer et al, <u>J. Org. Chem.</u> 55:4693-4699 (1990)	
	CV	Jakobovits et al, "Germ-line transmission and expression of a human-derived yeast artificial chromosome", <u>Nature</u> 362:255-261 (1993)	
	CW	Lamb et al, "Introduction and expression of the 400 kilobase precursor amyloid protein gene in transgenic mice", <u>Nature Genetics</u> 5:22-29 (1993)	
	CX	Lavitrano et al, "Sperm cells as vectors for introducing foreign DNA into eggs: genetic transformation of mice", <u>Cell</u> 57:717-723 (1989)	

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Sheet 5

of 7

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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	CY	Lefebvre-d'Hellencourt et al, "Immunomodulation by cytokine antisense oligonucleotides" <u>Eur. Cytokine Netw.</u> 6:7 (1995)	
	CZ	Lev-Lehman et al, "Antisense Oligomers <i>in vitro</i> and <i>in vivo</i> ", in <u>Antisense Therapeutics</u> , Cohen et al, ed., Plenum Press (New York, 1997)s	
	DA	Lo, <u>Mol. Cell. Biol.</u> 3:1803-1814 (1983)	
	DB	Loke et al, "Characterization of oligonucleotide transport into living cells", <u>Proc. Natl. Acad. Sci. USA</u> 86:3474 (1989)	
	DC	Mansour, "Gene targeting in murine embryonic stem cells: Introduction of specific alterations into the mammalian genome", <u>GATA</u> 7(8):219-227 (1990)	
	DD	Morrison, "Suppression of basic fibroblast growth factor expression by antisense oligonucleotides inhibits the growth of transformed human astrocytes", <u>J. Biol. Chem.</u> 266:728 (1991)	
	DE	Niinaka et al, "Expression and secretion of neuroleukin/phosphohexose isomerase/maturation factor as autocrine motility factor by tumor cells", <u>Cancer Res.</u> 58(42):2667-2674 (1998)	
	DF	Pearson et al, "Expression of the human β -amyloid precursor protein gene from a yeast artificial chromosome in transgenic mice", <u>Proc. Natl. Acad. Sci. USA</u> 90:10578-10582 (1993)	
	DG	Rosolen et al, "Antisense inhibition of single copy N-myc expression results in decreased cell growth without reduction of c-myc protein in a neuroepithelioma cell line", <u>Cancer Res.</u> 50:6316-6322 (1990)	
	DH	Rothstein, "Targeting, disruption, replacement, and allele rescue: integrative DNA transformation in yeast", in <u>Methods in Enzymology</u> , Vol. 194, "Guide to Yeast Genetics and Molecular Biology", Guthrie et al, eds., Academic Press, Inc. (1991), Chapt. 19, pp. 281-301	
	DI	Scanlon et al, "Oligonucleotides-mediated modulation of mammalian gene expression", <u>FASEB J.</u> 9:1288 (1995)	
	DJ	Schedl et al, "A yeast artificial chromosome covering the tyrosinase gene confers copy number-dependent expression in transgenic mice", <u>Nature</u> 362:258-261 (1993)	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6

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Paz EINAT

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1635

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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	DK	Shaw et al, "Modified deoxynucleotides stable to exonuclease degradation in serum", <u>Nucleic Acids Res.</u> 19:747-750 (1991)	
	DL	Spitzer et al, "Inhibition of deoxynucleases by phosphorothioate groups in oligodeoxyribonucleotides", <u>Nucleic Acids Res.</u> 18:11691-11704 (1988)	
	DM	Strauss et al, "Germ line transmission of a yeast artificial chromosome spanning the murine alpha 1(I) collagen locus", <u>Science</u> 259:1904-1907 (1993)	
	DN	Thompson et al, "Germ line transmission and expression of a corrected HPRT gene produced by gene targeting in embryonic stem cells", <u>Cell</u> 56:313-321 (1989)	
	DO	Uhlmann et al, "Antisense Oligonucleotides: A New Therapeutic Principle", <u>Chem. Rev.</u> 90(4):543-584 (1990)	
	DP	Van der Putten et al, "Efficient insertion of genes into the mouse germ line via retroviral vectors", <u>Proc Natl Acad Sci U.S.A.</u> 82(48):6148-6152 (1985)	
	DQ	Wagner et al, "Potent and selective inhibition of gene expression by an antisense heptanucleotide", <u>Nature Biotechnology</u> 14:840-844 (1996)	
	DR	Wagner, "Gene inhibition using antisense oligodeoxynucleotides" <u>Nature</u> 372:333 (1994)	
	DS	Watanabe et al, "Tumor cell autocrine motility factor is the neuroleukin/phosphohexose isomerase polypeptide", <u>Cancer Res.</u> 56(13):2960-2963 (1996)	
	DT	Whitesell et al, "Episome-generated N-myc antisense RNA restricts the differentiation potential of primitive neuroectodermal cell lines", <u>Mol. Cell. Biol.</u> 11:1360 (1991)	
	DU	Wright et al, "Antisense Molecules and Their Potential for the Treatment of Cancer and AIDs", <u>Cancer J.</u> 8:185-189 (1995)	
	DV	Woolf et al, "The stability, toxicity and effectiveness of unmodified and phosphorothioate antisense oligodeoxynucleotides in <i>Xenopus</i> oocytes and embryos", <u>Nucleic Acids Res.</u> 18:1763-1769 (1989)	

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Group Art Unit

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No. 1

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DW

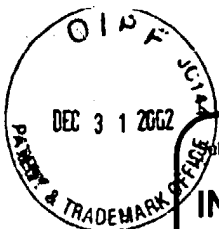
Yakubov et al, "Mechanism of oligonucleotide uptake by cells: involvement of specific receptors?", *Proc Natl Acad Sci U S A* 86(17):6454-6458 (1989)

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		Filing Date	March 6, 2002
		First Named Inventor	Paz EINAT
		Group Art Unit	
		Examiner Name	
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		Office ³	Number				
SPH	DU	WO	96/39426	A1	Johns Hopkins University School of Medicine	12-12-96	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
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SPH	DY	KATO et al, "Expression of the Vascular Endothelial Growth Factor (VEGF) Receptor Gene, KDR, in Hematopoietic Cells and Inhibitory Effect of VEGF on Apoptotic Cell Death Caused by Ionizing Radiation", <u>Cancer Res</u> 55:5687-5692 (1995)		
	DW	NOMURA et al, "Possible Participation of Autocrine and Paracrine Vascular Endothelial Growth Factors in Hypoxia-induced Proliferation of Endothelial Cells and Pericytes", <u>J Biol Chem</u> 270(47):28316-28324 (1995)		
	DX	O'ROURKE et al, "Identification of hypoxically inducible mRNAs in HeLa cells using differential-display PCR Role of hypoxia-inducible factor-1", <u>Eur. J. Biochem</u> 241:403-410 (1996)		
	DY	SOKER et al, "Inhibition of Vascular Endothelial Growth Factor (VEF)-induced Endothelial Cell Proliferation by a Peptide Corresponding to the Exon 7-Encoded Domain of VEGF ₁₆₅ " <u>J Biol Chem</u> 272(50):31582-31588 (1997)		

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